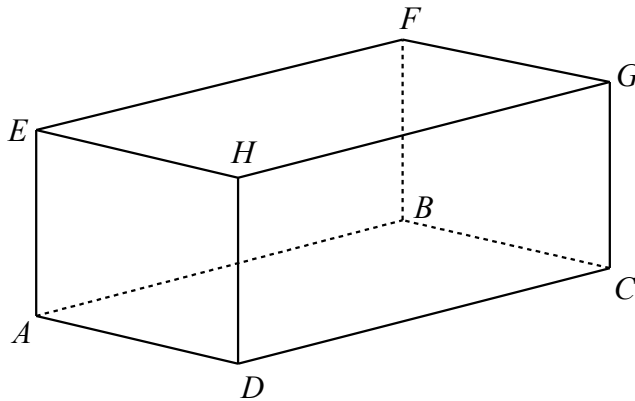


- 1 The diagram shows a cuboid $ABCDEFGH$.

$$\begin{aligned} AE &= 4 \text{ cm} \\ AD &= 5 \text{ cm} \\ DC &= 8 \text{ cm} \end{aligned}$$

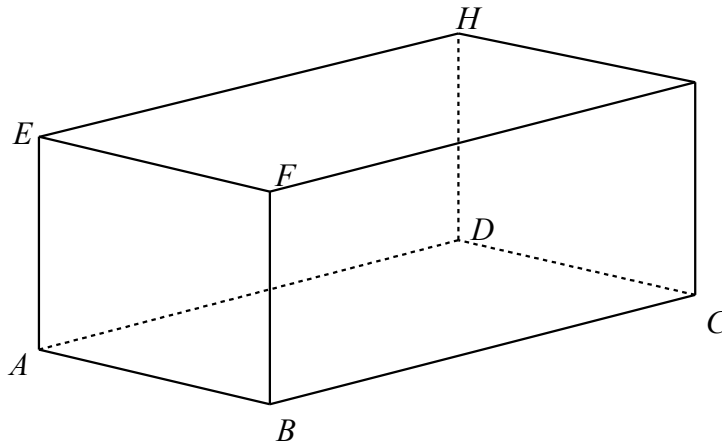


Calculate the length of AG .
Give your answer correct to 3 significant figures.

(3 marks)

- 2 The diagram shows a cuboid $ABCDEFGH$.

$$\begin{aligned} AB &= 5 \text{ cm} \\ AE &= 6 \text{ cm} \\ AG &= 12 \text{ cm} \end{aligned}$$

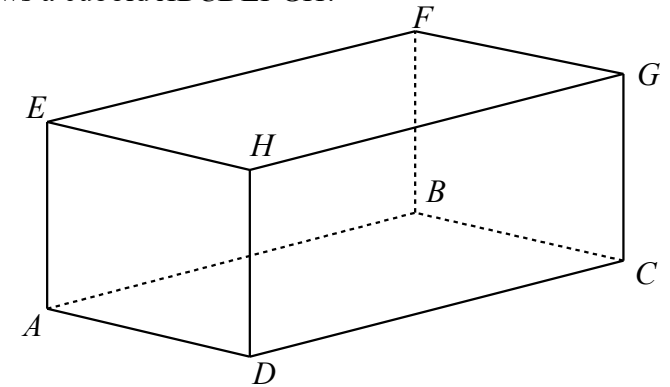


Calculate the length of AD .
Give your answer correct to 3 significant figures.

(4 marks)

- 3 The diagram shows a cuboid $ABCDEFGH$.

$$\begin{aligned} AE &= 4 \text{ cm} \\ AD &= 5 \text{ cm} \\ DC &= 8 \text{ cm} \end{aligned}$$

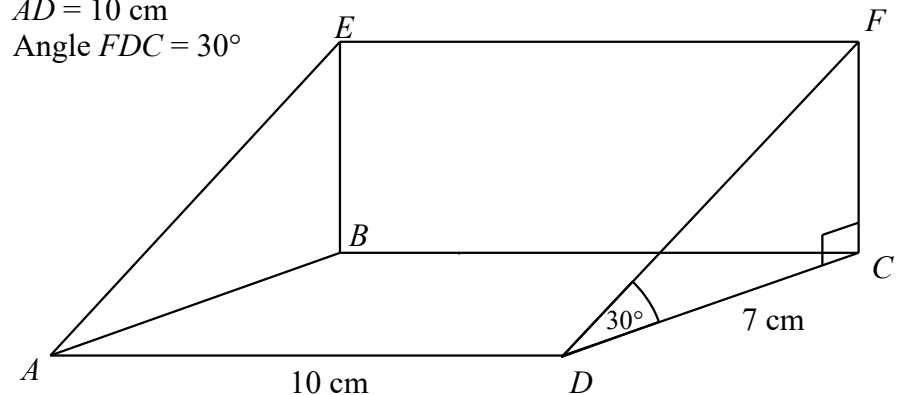


Calculate the size of angle ECA .
Give your answer correct to 3 significant figures.

(4 marks)

- 4 The diagram shows a triangular prism.

$$\begin{aligned} CD &= 7 \text{ cm} \\ AD &= 10 \text{ cm} \\ \text{Angle } FDC &= 30^\circ \end{aligned}$$



Calculate the size of angle AFC .
Give your answer correct to 1 decimal place.

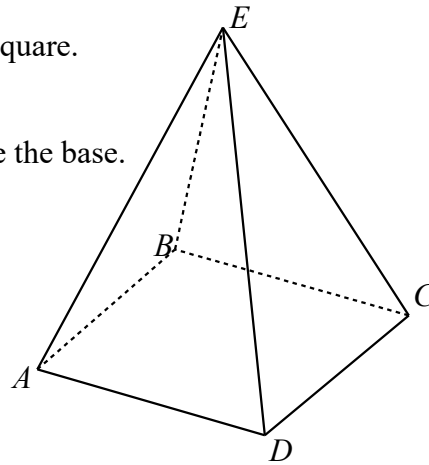
(4 marks)

- 5 The diagram shows a pyramid.
The base of the pyramid $ABCD$ is a square.

$$AB = 5 \text{ cm}$$

The point E is 10 cm vertically above the base.

Calculate the size of angle EAC .



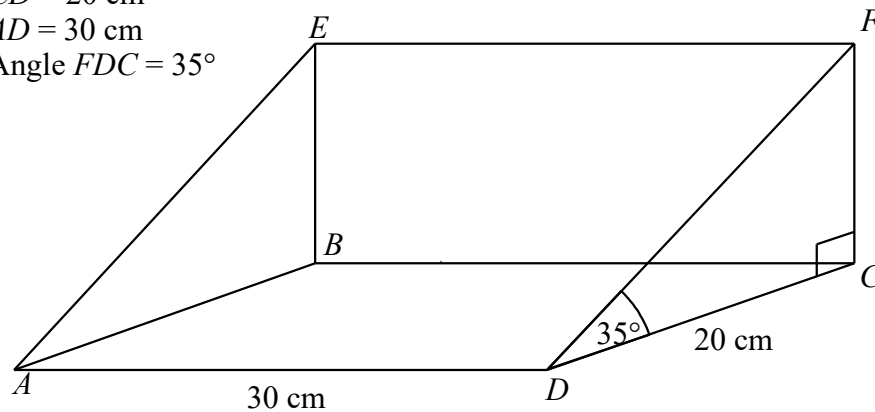
(4 marks)

- 6 The diagram shows a triangular prism.

$$CD = 20 \text{ cm}$$

$$AD = 30 \text{ cm}$$

$$\text{Angle } FDC = 35^\circ$$



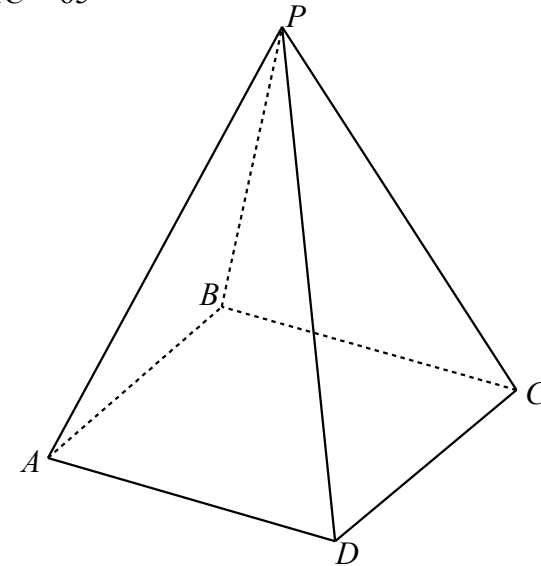
Calculate the size of angle the line AF makes with the plane $ABCD$.
Give your answer correct to 3 significant figures.

(4 marks)

- 7 The diagram shows a pyramid.
The base of the pyramid $ABCD$ is a square.

$$AB = 15 \text{ cm}$$

$$\text{Angle } PAC = 65^\circ$$



Calculate the volume of the pyramid.

(5 marks)